



Fenton Urban Sanitary District.

Annual Report

OF THE


Medical Officer of Health for the
Year 1905.

ROBERT HUGHES, M.B. (Lond.),

Medical Officer of Health.

Longton :

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TO THE CHAIRMAN AND MEMBERS OF THE
FENTON URBAN DISTRICT COUNCIL.

GENTLEMEN,

I beg to submit to your notice my Annual Report for the year 1905, the first since my appointment as your Medical Officer in March last.

By order of the Local Government Board, dated March, 1891, and by the Factory and Workshops Act of 1901, the Medical Officer is required to make an annual report, and to send copies to the Local Government Board, the County Council, and the Secretary of State.

A report written for the information of these Authorities must, of necessity, contain much, both as regards local circumstances and local sanitary questions, which would be superfluous if compiled for the information of the Council of the District alone.

While, therefore, I have endeavoured to omit nothing likely to prove of value, I have at the same time aimed at giving all information in as condensed a form as possible, and have made use of tabular statements whenever the subject matter admitted of this treatment.

As mere figures convey no definite ideas apart from standards of comparison, I have supplied statistics showing the state of affairs in other places. In order, however, not to unduly increase the bulk of the tables, one standard

only has (with one exception) been given when dealing with statistics for previous years. Birth, death and other rates based on the living population have all been recalculated for each year on the revised estimates of population submitted to and approved by you in my monthly report for June last.

The subject of Diarrhœa being so intimately connected with that of Infantile Mortality, has been considered with the latter, instead of among the seven principal Zymotic Diseases—its place in most reports.

The year 1905 has been remarkable for the number of important sanitary questions which have been under your consideration; amongst these may be specially mentioned:—

- I. The Disposal of Sewage.
- II. Ventilation of Sewers .
- III. Infantile Mortality.
- IV. Exclusion from school of children under five years of age.
- V. Allowance of fees to medical men for use of diphtheritic anti-toxin.
- VI. Provision of hospital accommodation for cases of Enteric Fever.

I beg to offer my sincerest thanks for the patience and courtesy with which any suggestions I have made during my short term of office have been considered, and to my brother officials for their very able and valuable co-operation.

I am, gentlemen,

Your obedient servant,

ROBERT HUGHES, M.B. (Lond.),

Medical Officer of Health.

67, Fountain Square,

February 14th, 1906.

SYNOPSIS.

Health Committee, 1904—5.

Staff and Office Accommodation.

Area, Physical Features, Boundaries, and General Character of District.

Pollution of Streams, Navigable Water, Canal Boats Inspection.

Chief Industries of the District. Their Effects on the Public Health.

Factories, Workshops and Workplaces.

House Accommodation, with special reference to Working Classes.

Number of inhabited and of empty houses. Average Number per House.
Number of New Houses erected. Houses certified unfit for habitation. Back-to-back Houses.

Population. Density per acre. Natural Increase. Increase by Immigration.

Vital Statistics of whole District during 1905 and previous years.

Vital Statistics of Separate Localities during 1905.

Institutions outside the District receiving Sick and Infirm Persons from the District.

Births. Still-born and Illegitimate Births Rates for District, England and Wales, 76 large towns, 141 smaller towns.

Deaths. Deaths of residents in Public Institutions beyond the District. Deaths not certified by a Registered Medical Practitioner Inquests. Death Rates.

Infantile Mortality Its Causes and Remedies. Diarrhœa. Respiratory Diseases Municipal Milk Depôt--Reasons why not advocated. Milk Supply.

Deaths from Seven Principal Zymotic Diseases during 1905 and previous years.

Methods of dealing with Infectious Disease employed in the District.

Notification. Isolation. Disinfection. Closure of Schools. Immunization.

Isolation Hospital. Situation. Accommodation. Staff. Charges. Deaths in. Cases of Infectious Disease notified in whole District and in separate Localities. Removals.

Small-pox. Vaccination. Measles. Scarlet Fever. Whooping Cough Diphtheria and Membranous Croup. Anti-toxin. Fevers--Enteric and Remittent. Puerperal Fever Midwives Act, 1902.

Chronic Infectious Diseases. Phthisis. Disinfection of Premises in cases of. Other forms of Tuberculosis. Cowsheds.

Toxic Diseases. Malignant Diseases.

Disposal of Dead. Cemetery. Churchyard. Public Mortuary.

Water Supply. Analysis. Houses supplied by Private Wells. Number condemned during year.

Sewerage and Drainage Ventilation of Sewers. House Drains. Disposal of Sewage. Public Inquiry. Removal of House Refuse.

Lunacy Statistics.

Schools. Accommodation. Average Attendance. Feeble-minded and Backward Children. Exclusion from School of Children under Five--Reasons for. Schools closed on account of Infectious Disease. Subjects relating to Public Health taught at. Number of cases of Infectious Diseases notified among Scholars attending various schools.

Adoptive Acts. Bye-laws.

HEALTH COMMITTEE, 1904-5.

Chairman :

COUNCILLOR J. TIBBETTS, L.R.C.P. (Edin.)

Vice-Chairman :

COUNCILLOR E. BRUNT.

Members :

COUNCILLOR J. SHENTON, J.P., C.C.

(Chairman of Fenton Urban District Council),

COUNCILLOR J. S. GODDARD, J.P.

(Vice-Chairman of Fenton Urban District Council),

COUNCILLOR C. R. COBDEN,

„ W. F. CROFTS,

„ W. DALE,

„ S. D'ARCY,

„ C. LAWTON,

„ A. MACE,

„ R. PODMORE,

„ G. ROGERS,

„ T. TWYFORD,

„ F. WAIN,

„ G. YATES.

*Clerk :—*Mr. R. T. ADDERLEY.

*Surveyor :—*Mr. S. A. GOODALL.

*Sanitary Inspector :—*Mr. P. BALDWIN.

Date of formation of Fenton Local Board, 1873.

„ „ „ District Council, 1894.

STAFF AND OFFICE ACCOMMODATION.

Besides myself as Medical Officer of Health, devoting part of my time to the work of the Health Department, at a salary of £60 per annum, out of which £6 have been paid in fees to the Registrar, there is one Sanitary Inspector, assisted by a lad. The Sanitary Inspector and the lad share an office at the Town Hall.

Office accommodation at the Town Hall being limited, I am using a room at my surgery in the immediate neighbourhood as a Health Office. This is in direct communication with my residence in the South Ward by private telephone wire.

AREA, PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.

The Fenton Urban Sanitary District is 1,752 acres in area, roughly pentagonal in shape, with an estimated population of 25,529 persons, a rateable value of £82,647, and is partly urban and partly rural in character, the actual town forming about one-fifth of the whole. It is divided for electoral purposes into four wards—North, South, East and West. Much of the rural portion, especially of the South Ward, is occupied by collieries.

The District is situated on the Staffordshire coal measures; the surface is undulating, and the subsoil is clay. Mining operations have led to subsidence in many parts. It is bounded on the north by the Hanley Urban and Stoke Rural Districts, on the south by the Longton Urban and Stone Rural Districts, the river Trent and the Cockster and Anchor Brooks; on the east by the Longton Urban, the Cheadle and Stoke Rural Districts (the boundary being formed by a water course running down the side of a hill from a part known as Fenton Park); on the west by the river Trent and the Stoke-on-Trent Urban

District. At the north-east extremity is a considerable elevation of land, reaching to a height of 629 feet above sea level, and is the highest point in the District. Beyond this is an isolated patch containing the Lawn Farm. This belongs to Fenton, but is separated from it by a strip of land belonging to the Stoke Rural District.

The town of Fenton forms a long line of buildings running through the centre of the district continuous on the east and west with those of the towns of Longton and Stoke-upon-Trent. About the centre of the town blocks of buildings and streets extend towards the north and south, making the whole roughly cruciform in shape. A semi-isolated collection of buildings is seen on the south-west, forming a part known as Mount Pleasant.

The population consists of colliers and factory operatives, with a complement of tradesmen, manufacturers and professional men.

In many parts of the town the surface is composed of "made soil."

POLLUTION OF STREAMS.

The river Trent forms the western boundary of the District, and receives sewage effluents from the Pottery towns. The pollution of the Trent is at present under the consideration of the authorities involved. The brook already alluded to as forming one of the eastern boundaries, is also polluted (see article on "Sewerage and Drainage").

NAVIGABLE WATER—CANAL BOAT INSPECTION.

The Stoke and Mersey Canal passes through the District for nearly two miles of its extent. Stoke-upon-

Trent is the registration authority for this and the whole of the surrounding districts.

The Sanitary Inspector has been authorised to inspect under the Canal Boats Act. The results of his inspection will be found in his Annual and Special Reports.

CHIEF INDUSTRIES OF THE DISTRICT.

1. China and Earthenware Manufacture.
2. Coal Mining.
3. Iron Works.
4. Brick and Tile Works.

EFFECTS AS REGARDS THE PUBLIC HEALTH.

THE SMOKE NUISANCE.—There is some slight improvement to be noticed in this respect, especially at Mount Pleasant.

TRADES REFUSE.—No nuisance has been complained of from this source. It is collected at frequent intervals, and burnt in the Longton destructor. There is no destructor in Fenton. There are no offensive trades on the register.

SANITARY CONVENIENCES IN FACTORIES AND WORKSHOPS.—Section 22 of the Public Health Act Amendment Act of 1890 has been adopted in this District since 1893. The standard of sufficiency and suitability enforced is that contained in the regulations issued by the Home Office. All conveniences for women are divided from each other, and with one exception are provided with separate doors. The approaches for the separate sexes are, in one or two instances, not so distinct as might be wished, and in one the entrances are not screened.

Nine privies have during the year been converted into water closets, and seventeen additional water closets supplied. There are now only sixteen privies left among all the factories of the district.

There is an adequate number of exits for escape in case of fire.

A summary of matters concerning factories and workshops will be found in the following table:—

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES AND HOMEWORK.

1.—INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTOR.

Premises	Number of		
	Inspections	Written Notices	Prosecutions
Factories (including Factory Laundries)	39	12	—
Workshops (including workshop Laundries)	63	1	—
Workplaces	—	—	—
Homeworkers' Premises	—	—	—
Total	102	13	—

2.—DEFECTS FOUND.

Particulars	Number of Defects			Number of Prosecutions
	Found	Remedied	Referred to H.M. Inspector	
Nuisances under the Public Health Acts:				
Want of Cleanliness	1	1	—	—
Want of Ventilation	—	—	—	—
Overcrowding	—	—	—	—
Want of Drainage of Floors ..	1	—	—	—
Other Nuisances	—	—	—	—
Sanitary Accommodation—				
Insufficient	9	5	—	—
Unsuitable	5	5	—	—
Not Separate for Sexes ..	1	1	—	—
Offences under the Factory and Workshop Act:				
Illegal Occupation of Underground Bakehouses (s. 101)	—	—	—	—
Breach of Special Sanitary Requirements for Bakehouses (ss. 97 to 100)	—	—	—	—
Failure as regards Lists of Outworkers (s. 107)	—	—	—	—
Giving out work to be done in premises which are—				
Unwholesome (s. 108)	—	—	—	—
Infected (s. 110)	—	—	—	—
Allowing Wearing Apparel to be made in premises infected by Scarlet Fever or Smallpox (s. 109)	—	—	—	—
Other Offences	—	—	—	—
Total	17	12	—	—

3.—OTHER MATTERS.

Class	Number
Matters notified to H.M. Inspectors of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	6
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (s. 5)—	
Notified by H.M. Inspectors	—
Reports (of Action taken) sent to H.M. Inspectors	—
Other	—
Underground Bakehouses (s. 101):—	
Certificates granted during the year 1905	—
In use at the end of the year 1905	—
	Number of
Homework :—	Lists Outworkers
Lists of Outworkers (s. 107) :—	
Lists received	— —
Addresses of Outworkers—	
Forwarded to other Authorities	— —
Received from other Authorities	— —
	Wearing Apparel Other
Homework in Unwholesome or Infected Premises :—	
Notices prohibiting Homework in Unwholesome Premises (s. 108)	— —
Cases of Infectious Disease notified in Homeworkers' Premises	— —
Orders prohibiting Home Work in Infected Premises (s. 110)	— —
	Number
Workshops on the Register (s. 131) at the end of the year :—	
Bakehouses	21
Boot Repairers	23
Dressmakers and Milliners	22
Engravers	4
Joiners and Builders	7
Painters and Plumbers	8
Others	31
Total number of Workshops on Register..	116

HOUSE ACCOMMODATION.

Bye-laws, dated July 23rd, 1894, have been framed, regulating the construction and alteration of buildings and streets. These are well administered.

The bulk of the houses in the district are two storeys in height, and consist of two to three living rooms on the ground floor, and the same number of bedrooms upstairs. Those built since the passing of the bye-laws present a general appearance of cleanliness and comfort, and it is doubtful if the working classes are anywhere better housed. Some of the older houses, however, are defective as regards cubic space of living rooms, window area, sanitary conveniences, and general repair. The windows in many cases are not constructed to open, and in some even of the largest houses there is no damp course.

There are only a dozen back-to-back houses in the entire District.

One house has during the year been certified as unfit for human habitation, on account of general dilapidation.

There is a sufficiency of open space about the houses, and the irregular shape of the town ensures of its being adequately supplied with "lungs."

As a consequence of continued trade depression, there are a fair number of instances in which more than one family occupy the same house.

Bye-laws should be framed regulating houses let in lodgings (see articles, "Bye-Laws" and "Alcoholism").

NUMBER OF INHABITED HOUSES.

At census of 1881	...	...	2,685
„ 1891	...	...	3,263
„ 1901	...	...	4,475
June 30th, 1905	...	...	4,830
December 31st, 1905	...	...	4,891

AVERAGE NUMBER OF PERSONS PER HOUSE.

At census of 1881	...	...	5·26
„ 1891	...	...	5·30
„ 1901	...	...	5·08

The number of empty houses on June 30th, 1905, was 264, and the total number of houses 5,094.

The number of empty houses on December 31st, 1905, was 223, and the total number of houses 5,114.

NUMBER OF NEW HOUSES ERECTED.

1903	...	...	107
1904	...	...	100
1905	...	...	51

HOUSE TO HOUSE INSPECTION.

Our Sanitary Inspector has, since the beginning of the year 1904, been engaged in compiling a book containing the sanitary record of every house in the district, arranged in tabular form. This is now completed, and will form a reference book of inestimable value.

POPULATION.

Whole District estimated to June 30th, 1905	...	25,529
„ „ December 31st, 1905		25,879

The population of the respective wards estimated to June 30th was as follows:—

North Ward	...	...	5,011
South Ward	...	...	5,716
East Ward	...	...	8,795
West Ward	...	...	6,007

CENSUS POPULATION.

1881	...	...	...	14,136
1891	...	...	...	17,325
1901	...	...	...	22,742

DENSITY PER ACRE.

Census, 1901	...	...	12·9
June 30th, 1905	...	...	14·5
End of 1905	...	...	14·8

The natural increase, *i.e.*, excess of births over deaths, during 1905 was 451.

TABLE SHEWING INCREASE OF POPULATION DURING 1905
AND PREVIOUS YEARS.

1	2	3	4
Year	Population at end of Year (estimated)	Excess of Births over Deaths during Year	Difference between increase of Population by excess of Births over Deaths and estimated Population at end of Year
1897	20,817	401	158
1898	21,391	368	106
1899	21,982	467	124
1900	22,587	507	98
*1901	23,210	489	134
1902	23,851	519	122
1903	24,509	443	215
1904	25,185	502	174
1905	25,879	451	243

* Census Year.

The figures contained in column 4 of the above table indicate the estimated increase by immigration during each year.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1905 AND PREVIOUS YEARS.

YEAR	Population estimated to middle of each Year	BIRTHS		TOTAL DEATHS REGISTERED IN THE DISTRICT				TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT	Deaths of Non-residents registered in Public institutions in the District	Deaths of Residents registered in Public Institutions beyond the District	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT			
		Number	Rate*	Under 1 year of Age		At all Ages					Number	Rate*		
				Number	Rate per 1,000 Births registered	Number	Rate*							
1	2	3	4	5	6	7	8	9	10	11	12	13		
1895	19445	842	43.2	182	216	393	20.2	There are no Public Institutions within the District		No Record	No Record	No Record		
1896	19985	845	42.3	166	196	435	21.8							
1897	20536	871	42.4	202	232	470	22.9							
1898	21102	869	41.1	184	212	501	23.7							
1899	21685	905	44.7	209	231	438	20.2							
1900	22282	980	44.0	159	162	473	21.2			No Record	No Record	17.2		
1901	22897	866	37.8	163	188	377	16.5							
1902	23528	905	38.5	144	159	386	16.4							
1903	24177	860	35.6	164	188	380	15.7							
1904	24844	925	37.2	172	186	390	15.7							
Averages for years 1895-1904	22048	887	40.7	174	197	424	19.4						—	
1905	25529	933	36.5	174	186	447	17.6	35					482	18.9

* Rate in Columns 4, 8 and 13 calculated per 1,000 of the estimated population.

Area of District in acres (exclusive of area covered with water), 1,752.

Total population at all ages, 22,742
Number of inhabited houses, 4,475
Average number of persons per house, 5.08

At Census of 1901

I. Institutions within the District receiving sick and Infirm persons from outside the District	II. Institutions outside the District receiving sick and infirm persons from the District	III. Other Institutions, the deaths in which have been distributed among the several localities in the District
None	<p data-bbox="597 842 924 984">North Staffordshire Infirmary, Stoke-on-Trent, 250 beds.</p> <hr/> <p data-bbox="574 1021 947 1340">Stoke-on-Trent Union Workhouse serving the Urban District of Fenton, the County Boro' of Hanley, the Boros' of Stoke-on-Trent and Longton and the Rural District of Stoke-on-Trent.</p> <hr/> <p data-bbox="574 1378 947 1482">The Infectious Diseases Hospital, Bucknall, 161 beds.</p> <hr/> <p data-bbox="589 1520 920 1589">Small-pox Hospital, Bagnall.</p> <hr/> <p data-bbox="612 1627 897 1697">Cottage Hospital, Longton.</p> <hr/> <p data-bbox="605 1734 905 1804">County Asylum, Cheddleton, Leek.</p>	None

The Union Workhouse is not situated within the District.

VITAL STATISTICS OF SEPARATE LOCALITIES IN 1905.

Name of Locality	North Ward			South Ward			East Ward			West Ward						
Year	Population estimated to middle of year			Population estimated to middle of year			Population estimated to middle of year			Population estimated to middle of year						
	Births Registered			Births Registered			Births Registered			Births Registered						
	Deaths at all ages			Deaths at all ages			Deaths at all ages			Deaths at all ages						
	Deaths under one year			Deaths under one year			Deaths under one year			Deaths under one year						
	Population estimated to middle of year			Population estimated to middle of year			Population estimated to middle of year			Population estimated to middle of year						
	Births Registered			Births Registered			Births Registered			Births Registered						
	Deaths at all ages			Deaths at all ages			Deaths at all ages			Deaths at all ages						
	Deaths under one year			Deaths under one year			Deaths under one year			Deaths under one year						
	Population estimated to middle of year			Population estimated to middle of year			Population estimated to middle of year			Population estimated to middle of year						
	Births Registered			Births Registered			Births Registered			Births Registered						
	Deaths at all ages			Deaths at all ages			Deaths at all ages			Deaths at all ages						
	Deaths under one year			Deaths under one year			Deaths under one year			Deaths under one year						
1905	5011	No Returns	97	46	5716	No Returns	88	25	8795	No Returns	158	72	6007	No Returns	104	30

I have been unable to include deaths of residents in Public Institutions beyond the District in these figures, as I have been unable to ascertain previous addresses in many cases.

BIRTHS.

Number of Births registered within the District during the year 1905	...	...	...	...	...	925
Birth Rate per 1,000 of the population	...	...	...	...	...	36.2
Number of Births in the Workhouse belonging to Fenton	...	...	...	...	...	8
Corrected Number of Births	...	...	...	...	...	933
Corrected Birth Rate...	...	...	...	...	...	36.5
Number of Still-born Children	...	...	...	...	...	8
Rate per 1,000 Births...	...	...	...	...	...	9
Number of Illegitimate Births	...	...	...	...	...	38
Rate per 1,000 Births	...	...	...	...	...	41
Birth Rate for 76 large towns	...	...	...	...	...	28.2
Birth Rate for 141 smaller towns	...	...	...	...	...	26.9
Birth Rate for whole of England and Wales	...	...	...	...	...	27.2

TABLE SHOWING MONTHLY BIRTH RATES PER 1,000 PER ANNUM OF THE ESTIMATED MID-YEAR POPULATION FOR THE YEARS 1901-1905.

			1905.	1904.	1903.	1902.	1901.
January..	..	..	41·0	32·5	42·7	39·8	39·3
February	..	..	37·7	37·6	29·7	33·6	33·0
March ..	..	..	43·2	35·2	49·6	34·7	31·9
April ..	..	..	40·4	34·8	36·2	37·7	33·5
May ..	..	..	32·9	38·7	29·7	39·2	46·1
June ..	..	..	34·3	37·6	42·1	40·2	36·6
July ..	..	..	32·4	31·8	39·2	42·8	36·6
August ..	..	..	30·5	40·6	40·2	32·1	47·2
September	..	..	33·8	39·6	31·2	38·7	39·3
October..	..	..	36·7	44·9	25·8	32·6	36·1
November	:	..	34·8	29·4	38·7	36·7	34·6
December	..	..	36·6	33·3	32·1	42·8	38·7

Reference to the Vital Statistics table will show :—

- (1) That our 1905 Birth Rate is, with one exception, the lowest recorded in the District for the past ten years ;
- (2) That the Birth Rates for the last half of the past decade are lower than those of the first half.

The highest Birth Rate during 1905 occurred in April and the lowest in August.

ILLEGITIMATE BIRTHS.

During the year 1905 the number of children registered as having been born out of wedlock was 38 ; of these 6 were born in the Workhouse, giving an illegitimate birth rate per 1,000 births of 41. This rate is exactly equal to that for England and Wales as a whole for the decade 1894—1903.

DEATHS.

Number of Deaths registered within the District during the year 1905	447
Death Rate per 1,000 living	17·6
Number of Deaths of Fenton residents occurring in Public Institutions beyond the District ...	35
Corrected Number of Deaths	482
Corrected Death Rate	18·9
Deaths not certified by a registered Medical Prac- titioner (excluding still-born children) ...	35
Number of Inquests	26
Death Rate for 76 large towns... ..	15·7
Death Rate for 141 smaller towns	14·4
Death Rate for England and Wales	15·2

TABLE SHEWING MONTHLY DEATH RATES PER 1000 PER
ANNUM OF THE ESTIMATED MID-YEAR POPULATION
FOR THE YEARS 1901—1905.

	1905	1904	1903	1902	1901
January	24·9	16·4	24·9	18·3	20·5
February	18·3	16·9	14·9	16·3	15·2
March	18·8	12·5	14·9	15·3	17·8
April	15·9	12·0	13·9	13·7	18·8
May	18·3	12·5	16·9	14·2	16·2
June	14·5	13·4	15·9	12·2	12·0
July	16·9	14·9	16·9	13·2	14·1
August	21·6	25·2	9·4	14·2	20·5
September	10·8	15·4	17·3	12·7	16·2
October	15·9	13·5	14·4	15·3	7·8
November	17·4	14·9	17·8	14·2	17·3
December	16·4	20·2	10·4	19·3	20·9

No record of "out" deaths has been kept prior to the year 1903. Comparing the rates in column 8 of the Vital Statistics table, it will be found that the rate for 1905 is higher than that for any year since the year 1900. It is, however, below the decennial average.

In order that comparison may be made with previous years, the monthly death rates have been calculated on the number of deaths within the District only.

The highest death rate during the year occurred in January, and the lowest in September.

Reference to the Vital Statistics table for separate localities, and to the following table, will show that the largest number of deaths occurred in the East and West Wards, and the lowest in the South and North. The former are almost entirely urban, whilst a considerable proportion of the latter is rural in character.

The death *rates* per 1,000 of the estimated living population of the respective wards are:—North Ward, 19·3; South Ward, 15·4; East Ward, 17·9; West Ward, 17·3.

INFANTILE MORTALITY DURING THE YEAR 1905.

DEATHS FROM STATED CAUSES IN WEEKS AND MONTHS UNDER ONE YEAR OF AGE.

CAUSE OF DEATH.		Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-2 Months	2-3 Months	3-4 Months	4-5 Months	5-6 Months	6-7 Months	7-8 Months	8-9 Months	9-10 Months	10-11 Months	11-12 Months	Total Deaths under One Year
All Causes	Certified	16	10	6	5	37	13	15	14	14	9	17	10	9	10	9	13	170
	Uncertified	1	1	1	—	3	1	—	—	—	—	—	—	—	—	—	—	4
Common Infectious Diseases :—																		
Small-pox	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chicken-pox	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles	..	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	2	4
Scarlet Fever	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—
Diphtheria : Croup	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Whooping Cough	..	—	—	—	—	—	1	—	1	—	1	—	—	3	1	2	—	9
Diarrhoeal Diseases :—																		
Diarrhoea, all forms	..	—	—	—	1	1	2	3	2	4	3	5	4	2	1	—	2	29
Enteritis (not Tuberculous)	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gastritis, Gastrointestinal Catarrh	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Wasting Diseases :																				
Premature Birth	4	1	—	2	7	14	15	14	14	9	17	10	9	10	9	13	174
Congenital Defects	2	1	—	—	3	—	—	—	—	—	—	—	—	—	—	1	5
Injury at Birth	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Want of Breast-milk	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Atrophy, Debility, Marasmus..	10	6	5	1	22	7	6	5	5	2	1	1	2	1	1	1	54
Tuberculous Diseases :—																				
Tuberculous Meningitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tuberculous Peritonitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Tabes Mesenterica	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Tuberculous Diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Erysipelas	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Syphilis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Rickets	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Meningitis (not Tuberculous)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Convulsions	—	1	1	1	3	—	1	1	1	—	2	2	1	1	1	1	2
Bronchitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16
Laryngitis	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11
Pneumonia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Suffocation, overlaying	—	1	1	—	—	1	1	2	2	1	3	1	2	4	2	2	23
Other Causes	1	1	—	—	2	1	—	—	—	—	—	—	—	—	—	—	3
Total	17	11	7	5	40	14	15	14	14	9	17	10	10	9	13	174	

POPULATION,
Estimated to middle of 1905,
25,529.

Births in the year { Legitimate, 895.
Illegitimate, 38.

Deaths from all Causes at all Ages, 482.

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1905.

CAUSE OF DEATH.	DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING IN OR BEYOND THE DISTRICT.							DEATHS AT ALL AGES OF "RESIDENTS" BELONGING TO LOCALITIES, OCCURRING IN THE DISTRICT.				Total Deaths whether of Residents or non "Residents" in Public Institutions in the District
	All Ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	North Ward	South Ward	East Ward	West Ward	
1	2	3	4	5	6	7	8					16
Measles ..	17	4	13	—	—	—	—	3	5	3	6	
Scarlet fever ..	1	—	—	1	—	—	—	—	1	—	—	
Whooping-cough ..	19	9	10	—	—	—	—	10	—	3	6	
Diphtheria and membranous croup	8	2	6	—	—	—	—	3	—	3	2	
Fever { Typhus ..	—	—	—	—	1	—	1	1	—	—	—	
Enteric ..	5	—	—	—	—	3	—	—	—	1	3	
Relapsing ..	1	—	—	—	—	1	2	—	—	1	—	
Epidemic influenza ..	6	—	—	—	—	4	—	1	1	1	2	
Diarrhoea ..	37	29	7	—	—	1	—	7	3	25	2	
Puerperal fever ..	3	—	—	—	—	3	—	—	1	1	1	
Phthisis (Pulmonary Tuberculosis)	28	—	1	2	4	20	1	4	4	12	6	
Other tubercular diseases ..	4	1	2	—	—	1	—	1	1	1	1	
Cancer, malignant disease ..	15	—	—	—	—	13	2	2	7	2	3	
Bronchitis ..	51	11	2	1	—	22	15	9	9	22	9	
Pneumonia ..	49	23	9	3	2	9	3	6	9	17	17	
Other diseases of Respiratory organs ..	2	1	—	—	—	1	—	1	—	—	1	
Alcoholism ..	6	—	—	—	—	5	1	—	1	2	3	
Cirrhosis of liver ..	—	—	—	—	—	—	—	—	—	—	—	
Venereal diseases ..	2	1	1	—	—	—	—	—	—	1	1	
Premature birth ..	10	10	—	—	—	—	—	2	3	3	2	
Diseases and accidents of parturition ..	4	—	—	—	—	4	—	—	1	—	3	
Heart Diseases ..	43	—	—	1	4	30	8	8	10	11	6	
Accidents ..	15	3	3	2	—	5	2	3	5	3	2	
Suicides ..	3	—	—	—	—	3	—	1	2	—	—	
All other causes ..	153	80	17	2	1	28	25	35	25	46	28	
All causes ...	482	174	71	12	12	153	60	97	89	158	104	
There are no Public Institutions receiving Sick or Infirm persons in the District.												

There are no Public Institutions receiving Sick or Infirm persons in the District.

INFANTILE MORTALITY.

Number of Deaths of Children under one year	
during 1905	174
Rate per 1,000 Births registered	186
Rate for 76 large towns	140
Rate for 141 smaller towns	132
Rate for England and Wales	128

INFANTILE MORTALITY per 1,000 Births in Fenton, adjoining towns, large towns, and the whole of England and Wales, for 1905 and previous years.

		1905	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	Average, 1895-1904
Fenton .. ..	..	186	186	188	159	188	162	231	212	232	196	216	197
Stoke .. ..	..	147	148	137	162	186	164	224	166	191	163	192	173
Longton .. ..	..	197	191	215	198	225	256	243	275	253	235	234	232
Hanley .. ..	..	195	206	170	170	212	209	216	223	202	213	197	202
Burslem .. ..	..	205	194	182	172	209	230	197	200	232	216	182	201
Large Towns ..	..	*140	160	144	145	†165	172	181	178	177	167	182	167
England and Wales..	..	128	146	132	133	151	154	163	160	156	148	161	150

* 76 large towns.

† 33 large towns.

It will be noted that Fenton averages the lowest but one of the Pottery towns, but that the average rate is 3 per cent. higher than that of the large towns of England and Wales, including London, and 5 per cent. higher than that for the whole country.

Of these infantile deaths, 40 occurred under the age of one month ; 69 occurred from wasting diseases, 29 from diarrhoea, 16 from convulsions, 35 from diseases of the respiratory organs, and 15 from infectious diseases. Three

were caused by over-laying, and 10 to premature birth. The public seem very slow in realizing the risk to a child's life from sleeping in the same bed with the mother. An epidemic of diarrhœa occurred during the months of July and August.

Table shewing number of Deaths of Infants under one year of age from all causes, from Diarrhœa, and from diseases of the respiratory organs, arranged according to localities.

	North Ward	South Ward	East Ward	West Ward
Infantile deaths from all causes ..	46	25	72	30
Infantile deaths from diarrhœa ..	5	3	20	1
Infantile deaths from diseases of respiratory organs	10	4	15	6

One infantile death, not included in these figures, occurred in the North Staffordshire Infirmary.

It will be noted what a large proportion of deaths in each case occurred in the East Ward.

On reference to article, "Physical Features and General Character of the District," at the commencement of this report, it will be noted that the town of Fenton is continuous on the east with that of Longton, and on the west with that of Stoke-upon-Trent.

Reference to the table comparing the infantile mortality rates for the Pottery towns will show that the average for the decennial period 1895—1904 is highest of all in the case of Longton, and lowest in that of Stoke. The East Ward would tend to approach Longton conditions, and the West Ward Stoke conditions. As a matter of fact, a great many residents in the East Ward have immigrated into the District from Longton, attracted,

no doubt, by the lower Fenton rates. These work in Longton, shop in Longton, and mix generally with Longton rather than Fenton people. There is also a large amount of "made soil" in the East Ward.

TABLE SHEWING NUMBER OF DEATHS FROM DIARRHŒA DURING 1905 AND PREVIOUS YEARS.

	1905	1904	1903	1902	1901	1900	1899
Number of deaths at all ages	37	70	29	18	28	22	76
Death Rate per 1,000 living	1·49	2·82	1·19	0·76	1·22	0·98	3·50
Death Rate for large towns	*0·83	1·26	0·70	0·54	†1·22	0·93	2·21
Deaths from Diarrhœa of children under 1 year	29	60	28	13	26	20	70
Deaths under 1 year from all causes	174	172	164	144	163	159	209
Death Rate per 1,000 born of children under 1 year from Diarrhœa	32	65	32	14	30	20	77
Infantile Mortality rate from all causes ..	186	186	188	159	188	162	231

* 76 large towns.

† 33 large towns.

The majority of these deaths during 1905 occurred in the months of July and August.

The large proportion of deaths under one year is very marked, both for 1905 and previous years.

During July and August I made a special inspection of premises on which deaths from diarrhœa occurred.

Of 23 deaths from diarrhœa which occurred during these two months among infants under one year of age, the mode of feeding was :—

Breast fed	...	...	...	...	...	1
Bottle fed	...	...	...	...	...	15
Both	...	...	...	...	...	2
Answers unreliable or uncertain	...					5
						<hr/> 23

Of the 17 bottle-fed children, the food used was :—

Cow's Milk	...	...	...	11
Condensed Milk	...	...	...	3
Patent Food	...	...	...	1
Improper Food	...	...	...	2
				<hr/>
				17

Of those fed on cow's milk, in three instances only was the milk delivered twice a day.

The milk supply was from five distinct sources, each of these also supplying a large number of families in which no cases of diarrhœa occurred. Of the 17 bottle-fed babies, in 10 cases the mothers went to work. There was considerable difficulty in getting parents to discriminate between the mode of feeding originally used and that prescribed after medical aid had been called in ; in many cases also there was some difficulty in impressing the fact that the inquiries were being made for the benefit of the people, and not with a view to getting them into "trouble." Hence some of the answers have been classified as unreliable or uncertain.

In two cases only was any sanitary defect found at the houses inspected.

TABLE SHEWING AGES AT DEATH FROM DISEASES OF THE
RESPIRATORY ORGANS (EXCLUDING TUBERCULOUS DISEASES)
FOR 1905 AND PREVIOUS YEARS.

	1905	1904	1903	1902	1901	1900
Under 1 year	35	10	25	23	18	24
1 year and under 5 years ..	11	9	13	14	4	22
5 ,, ,, 15 ,, ..	4	2	2	1	..	2
15 ,, ,, 25 ,, ..	2	1	1	1	..	5
25 ,, ,, 65 ,, ..	32	34	25	21	22	16
65 ,, and upwards	18	8	24	13	9	13
Total	102	64	90	73	53	74

Of the 102 deaths during 1905, fifty-one were due to bronchitis, forty-nine to pneumonia, and two to other diseases of the respiratory organs, giving a respiratory death rate per 1,000 living of 3·9. Influenza was very prevalent during the first two months of the year.

It will be noticed what a large proportion of deaths have occurred during each year amongst young children. I believe this for the most part to be due to the practice of putting children out to nurse while the parents go to work.

From the figures contained in these tables, and from my experience as a private practitioner, I believe the main causes of our high infantile mortality to be:—

I. THE EMPLOYMENT OF FEMALE LABOUR.—Any attempt to combine the offices of child-bearer and breadwinner in one person must of necessity result in feeble, bottle-fed babies and premature births.

II. THE DELIVERY OF MILK ONCE A DAY ONLY.—This is by far too common a custom here, and the late hour at which delivery takes place renders it impossible to ensure the first morning meal being untainted.

III. THE EXTENSIVE USE OF THE TUBE BOTTLE.—This no one can keep clean. In the special report *re* Infantile Mortality, by the Medical Officer of Health for Huddersfield, the views of many authorities of England, France and Germany are given, and they one and all condemn the tube bottle.

IV. WANT OF CLEANLINESS IN STORAGE OF MILK.—I have frequently found milk stored in hot, stuffy larders and in dirty vessels without any sort of covering. The consequence is the surface becomes covered with microbe-laden dust and flies.

V. THE PUTTING OUT OF INFANTS TO NURSE.—One would like to know exactly how many of the infantile deaths due to diseases of the respiratory organs were caused by the conveyance to and from home of babies put out to nurse.

VI. THE PREVALENCE OF "MADE" SOIL.—A surface composed of pit refuse and shraff on a native subsoil of clay affords, during seasons of drought and fall of subsoil water, every facility for the dissemination of the micro-organism of epidemic diarrhoea.

METHODS EMPLOYED WITH A VIEW TO DIMINISHING THE INFANTILE MORTALITY OF THE DISTRICT.

The portion of my monthly report for August last dealing with diarrhœa, having been referred to the Health Committee, the whole subject of Infantile Mortality was discussed, with the result that a request was sent to the Education Committee to arrange with the County Education Committee for Miss Curwen to give a course of lectures to female school teachers on the feeding of infants, with a view to their instructing their pupils thereon, and a quantity of circulars containing rules for the welfare of babies, was ordered to be printed and circulated throughout the District. Printed circulars have in former years been delivered to parents by the Registrar at the time of registration of birth. Owing to the length of time allowed before registration is compulsory, these have been of no value. I have accordingly drawn up large-sized cards, and have arranged for their distribution through the heads of the various religious denominations and others engaged in philanthropic work. In all cases my request for volunteers has met with a most kind response. Several ladies have also undertaken to read these cards to poor people, and explain their contents. On the face of the cards the importance of breast-feeding is insisted on in large type. On the back are a few simple rules for the management and (where breast feeding is impossible) the artificial feeding of young babies, laying stress on the importance of cleanliness of storage vessels and bottles, and other matters. A considerable number of these cards have already been distributed. Instructions on the feeding and management of young children are now being given to senior girls in all public elementary schools in the District. Instructions on the preparation of infants' foods are also given at the new Cookery Centre.

We hope to secure Miss Curwen's services shortly after Easter. I am informed by Miss Garnett that a course of lectures will also be given to young women at Fenton House, on the feeding and management of infants, in the early part of 1906.

A day nursery was opened some four or five years ago in connection with this Institution, but was not made use of to any extent, and was consequently abandoned.

There is no lady inspector in Fenton.

ADDITIONAL MEASURES DESIRABLE.

I. Legislation regulating the Employment of Mothers.—A mother should be prohibited from engaging in any form of *laborious* employment from a month prior to confinement, and in any employment necessitating prolonged absence from her child for at least six months afterwards.

II. Legislation prohibiting the sending out of infants to nurse, except to authorized places and persons.

III. These places and persons should be registered, and systematic inspections made of premises, milk, foods, bottles and other utensils.

As soon as it is realized how baneful to the infant the absence of its mother is, there is no doubt that public opinion first, and afterwards legislation, will move in the right direction, and regulate efficiently the employment of female labour.

MILK SUPPLY.

There are 19 cowkeepers and 26 purveyors of milk within the District, and over 20 bringing milk into the

District from outside. This mixed supply renders any systematic supervision almost impossible.

(See also "Other Forms of Tuberculosis," "Bye-laws," and the Sanitary Inspector's Report *re* Cowsheds and Milkshops.)

MUNICIPAL MILK DEPOT.

The establishment of a municipal milk depôt to serve the Pottery towns has recently been advocated. As I am strongly of opinion that in most cases the milk has become contaminated *after* delivery, I fear the result would be disappointing. Until some definite conclusion can be arrived at from among the conflicting opinions of authorities as to the desirability, or not, of sterilizing milk for infants' use, the provision of a depôt for supplying *sterilized* milk would, in my opinion, be premature.

DEATHS FROM THE SEVEN PRINCIPAL
ZYMOTIC DISEASES.

Number of Deaths	...	...	...	...	...	...	...	89
Zymotic Death Rate	...	...	...	...	...	...	...	3·48
Zymotic Death Rate for 76 large towns	...	...	...	...	...	...	...	1·88
" " " for 141 smaller towns	...	...	...	...	...	...	...	1·50
" " " for England and Wales	...	...	...	...	...	...	...	1·52

TABLE SHEWING DEATHS FROM THE SEVEN PRINCIPAL ZYMOTIC DISEASES FOR 1905 AND PREVIOUS YEARS.

	1905		1904		1903		1902		1901		1900		1899		1898	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Small-pox ..	0	0·00	0	0·00	0	0·00	0	0·00	0	0·00	0	0·00	0	0·00	0	0·00
Measles ..	17	0·66	0	0·00	5	0·20	0	0·00	2	0·08	15	0·67	0	0·00	36	1·70
Scarlet Fever ..	1	0·03	7	0·28	10	0·41	10	0·42	2	0·08	11	0·49	6	0·27	7	0·33
Whooping Cough ..	19	0·74	2	0·07	2	0·08	5	0·21	8	0·35	5	0·22	14	0·68	5	0·23
Diphtheria and Membranous Croup ..	8	0·31	7	0·28	11	0·45	8	0·34	10	0·44	17	0·76	17	0·78	44	2·08
Fevers (enteric and remittent) ..	6	0·23	3	0·12	5	0·20	2	0·08	3	0·13	8	0·35	9	0·41	1	0·04
Diarrhoea ..	37	1·46	70	2·82	29	1·19	18	0·76	28	1·22	22	0·98	76	3·50	34	1·61
Total ..	88	3·43	89	3·57	62	2·53	43	1·81	53	2·30	78	3·47	122	5·64	127	5·99
Zymotic Death Rate for large towns ..	..	*1·88	..	2·49	..	1·89	..	2·12	..	†2·68	..	2·50	..	2·81	..	2·85

* 76 large towns.

† 33 large towns.

These rates are calculated per 1,000 of the estimated population.

METHODS OF DEALING WITH INFECTIOUS DISEASES.

The methods employed in this District are :—Notification, Isolation, Disinfecting, Closure of Schools, and Immunization.

NOTIFICATION.—The Infectious Diseases (Notification) Act of 1889 has been adopted in this District since April 15th, 1891. The only disease notified, other than those scheduled in the Act, is Bubonic Plague, which was added by order of the Local Government Board at the end of 1900. The question of the voluntary notification of phthisis was brought up a year or two ago, with a negative result. Sheffield and Sandgate are at present the only towns which have taken any steps to enforce its compulsory notification. The number of towns which are adopting voluntary notification of this disease is every year increasing. Voluntary notification is, however, usually unsatisfactory. One Medical Officer reports that he received only fifty notifications in four years, whereas the number of deaths registered during the same period from phthisis was 139!

Weekly returns of all notifications received during the year have been sent to the County Medical Officer and to the Local Government Board.

On receipt of a notification, the Sanitary Inspector proceeds immediately to the infected house, and makes exhaustive investigations as to its sanitary condition and the possible source of infection. The results of his enquiries are tabulated on the printed forms devised by Dr. Tatham, of Somerset House. Should isolation be thought unsatisfactory, or other occasion arise, I visit the premises personally. Nearly all cases reported during the year have been visited by us both.

ISOLATION.—In cases nursed at home, besides verbal instructions, a printed list of instructions from the Medical Officer of Health, an abstract from the Infectious Diseases Prevention Act, and a post-card (to be signed by occupier, and returned to the Sanitary Office at the termination of the case) have been left at the house. The Sanitary Inspector has made frequent calls at these houses during the course of the illness, to ascertain whether these instructions are being carried out. The remaining members of the family have been stopped from attending school, but not from work. Experience having shown that home isolation is but imperfectly carried out, every effort has been made to obtain the consent of parents and guardians for the removal of cases to the Isolation Hospital.

TABLE showing number of Cases Notified and percentage of Removals to Hospital for 1905 and previous years.

Year	1905	1904	1903	1902	1901	1900	1899
Number Notified ..	161	277	172	176	260	559	552
Number Removed ..	68*	117	73	71	63	73	69
Percentage of Removals	42·2*	50·6	58·4	40	24	13	12·5

* Fee for injection of Contacts with cases of Diphtheria, allowed in October.

This Table shows that the greater the percentage of removals the lower has been the number of cases notified, and demonstrates the unsatisfactory nature of home isolation.

Diseases for which there is no hospital provision have been excluded from these percentages.

✓ DISINFECTION.—Disinfection is in all cases carried out by and at the expense of the District Council. Rooms and surfaces have been disinfected by fumigation with chlorine gas, the walls having previously been sprayed with water. In a few cases the sulphur candle has been used. Bed and body clothing is removed in a covered hand-cart

to the disinfecting station, and disinfected by means of a Reck's Steam Disinfector. Disinfectants are supplied free to houses where cases of infectious disease are being nursed at home, for washing and disinfecting clothing and other articles during the progress of the case.

In the case of persons suffering from typhoid fever, special covered pails are provided for the reception of excreta in all houses with privy accommodation only. These, containing disinfectants, are removed as required, and their contents buried at the Sewage Farm. A destructor would be of service for this purpose.

CLOSURE OF SCHOOLS.—The exclusion from school of scholars from infected houses has been insisted on in all cases except enteric fever. The more serious step of closing a school has not been resorted to until the attendance percentage has been seriously diminished. In cases where this has been done, a special report has been drawn up and submitted to two members of the Council; copies have also been sent to the County Medical Officer, and to the Local Government Board. A closure order (under Article 88 of the Education Code) has then been obtained, bearing the signature of the Councillors to whom the report has been submitted. In the case of Sunday schools, I have written to the Secretary of the school managers, inviting their co-operation by voluntary closure, and in all cases my request has been complied with. For list of schools closed, see article, "Schools."

IMMUNIZATION.—The production of a state of artificial immunity has been employed in the case of small-pox by vaccination, and in the case of diphtheria by the injection of anti-toxin. Vaccination is not under the control of the District Council. The Stoke-upon-Trent Board of Guardians appoint a Public Vaccinator to act under the Vaccination Acts of 1867—1898. For reports *re* Vaccina-

tion and Diphtheritic Anti-toxin, see articles, " Small-pox " and " Diphtheria."

Both the covered pails for use in enteric fever cases, and Dr. Tatham's forms, were introduced at the suggestion of our present Sanitary Inspector, Mr. P. Baldwin, four years ago. The energy and dispatch with which all cases of infectious disease have been dealt with by this exceptionally efficient officer has done much in reducing their number. In all cases where removal has been carried out this has been done, and the house disinfected within a few hours of the receipt of the notification.

SPOT MAPS.

The provision of maps, containing an outline of the District, and showing the principal streets, for the construction of spot maps, would aid much in the early detection of any undue incidence of infectious disease in any one locality, while still in an early and consequently most preventible stage. These maps to be hung in the Sanitary Inspector's office, and in the Council Chamber and Committee room during meetings of the Council and Health Committee.

ISOLATION HOSPITAL.

The Isolation Hospital is under the authority of the Hanley, Stoke, Fenton and Longton Joint Hospital Board, and is situated at Bucknall, in the Stoke-on-Trent Rural District. It is built on the pavilion system, the separate buildings being connected by covered ways. Cases are received from Hanley, Stoke-on-Trent, Longton, Fenton and the Stoke Rural District. The joint population of these Districts is now, roughly, from 160,000 to 165,000. Extensive additions have recently been made to the hospital, and were opened in the summer of 1905. The hospital now contains 161 beds, thus affording approximately one bed per 1,000 of the joint population.

Up to the present time cases of enteric fever have not been received into the hospital. At the commencement of the forthcoming financial year, however, 24 beds (12 adult and 12 children) will be used for their reception, and a new ambulance set apart entirely for such cases.

The accommodation at the hospital will then be:—
Scarlatina, 101 beds; Diphtheria, 36 beds; Enteric Fever, 24 beds.

STAFF.—1 Visiting Medical Officer, 1 Female Resident Medical Officer, 1 Master, 1 Matron, with Nurses and Probationers to the required number.

SCALE OF CHARGES.—For the maintenance and care, etc., of patients admitted by order of a Medical Officer of Health within the district of the Board:—

Patients under 14 years of age 1/4 per day

Patients 14 years of age and upwards ... 1/9 „

Medical Attendance in each case, attended by Board's Medical Officer... £1 1s.

Private Patients:—

Patients treated in private ward 5/- per day

Medical Attendance in each case, attended by Board's Medical Officer... £2 2s.

All patients are conveyed to hospital in the Board's Ambulance, and are accompanied by a nurse. The number removed from Fenton District will be found in the following tables. Amongst these there were no deaths.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1905.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.				No. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.			
	At all Ages	At Ages—Years					1	2	3	4	1	2	3	4
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65								
Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria ..	78	2	17	38	9	11	17	10	42	9	10	8	16	4
Membranous Croup ..	4	1	2	1	..	..	2	..	2	..	..	..	1	..
Erysipelas ..	7	..	..	..	..	3	2	2	3	..	..	..	1 ^a	..
Scarlet Fever ..	45	..	13	22	8	2	11	17	5	12	7	8	4	9
Typhus Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ..	22	..	1	5	5	9	5	1	10	6	2 ^a	..	..	1 ^b
Relapsing Fever ..	1	..	..	..	..	1	..	..	1	..	..	..	..	..
Continued Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ..	4	..	..	..	..	4	..	1	2	1	..	..	..	..
Plague ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTALS ..	161	3	33	66	22	30	37	31	65	28	19	16	22	14

^a Removed to Workhouse Infirmary, Stoke-on-Trent. ^b Removed to North Stafford Infirmary, Stoke-on-Trent.
Isolation Hospital situated at Bucknall, in the Stoke-on-Trent Rural District, under the authority of the Hanley, Stoke, Longton and Fenton Joint Hospital Board.

SMALL-POX.

With the exception of the year 1903, when four cases were notified, no case of this disease has occurred in the District for some years.

The Joint Small-pox Hospital Board's hospital is situated at Bagnall, in the Stoke-on-Trent Rural District.

VACCINATIONS.

Public Vaccinator, appointed by the Stoke-on-Trent Board of Guardians—Dr. Tibbetts.

	Year 1904.	Half-year ending June 30, 1905.
Number of Births	925	488
Successfully Vaccinated...	763	435
Insusceptible	----	----
Had Small-pox	----	----
Died	129	43
Postponed	3	3
Conscientious Objections	1	----
Gone to other Districts...	13	3
Gone, no trace	16	4
Unvaccinated	----	----

With few exceptions, these vaccinations were all performed by the Public Vaccinator. 716 Vaccinations have been performed by him during the whole year 1905.

I am informed by the Public Vaccinator that only three re-vaccinations have been done by him during the year.

The compulsory re-vaccination of children on leaving school is much to be desired, as well as legislation concerning the re-vaccination of vagrants.

MEASLES.

This complaint was very prevalent during the first half of the year. It broke out in the adjoining town of Stoke at the end of 1904, then attacked the children attending the Mount Pleasant schools, situated in the south-west of the District, and extended through the town in the direction from west to east.

The summer holidays seem to have finally extinguished the epidemic in Fenton; later on, however, it re-appeared in the adjoining town of Longton, thus continuing, outside our District, its course from west to east.

It was mainly spread by contact among children attending school, mostly attacking the infants' departments. Its passage from one school to another has been in part due to the fact that different members of families from infected houses have attended different schools. The school teachers have exercised the greatest care in excluding all suspicious cases during the epidemic. There was, however, great carelessness on the part of parents in this matter; in one of the schools children were sent to school with the eruption plainly manifest.

All children from *known* infected houses were rigidly excluded, and inspections made at schools involved. For list of schools closed, see article, "Schools."

Measles is not notified in this District, neither have I advocated this measure. I, however, would beg to suggest that a list of all children absent from school, and the cause of absence should be sent to me by the head teachers at frequent intervals, in the case of those known to be suffering either from this or other non-notifiable infectious disease.

DEATHS from Measles during 1905 and previous years.

Year	1905	1904	1903	1902	1901	1900	1899
Number of Deaths ..	17	0	5	0	2	15	0
Death Rate per 1,000 living	0·66	0·00	0·20	0·00	0·08	0·67	0·00
Death Rate for large towns	*0·39	*0·46	0·36	0·50	†0·43	†0·43	0·46

* 76 large towns.

† 33 large towns.

The death-rate during 1905 for the 141 smaller towns was 0·31, and for the whole of England and Wales 0·32.

TABLE shewing number of Deaths and Death Rate per 1,000 living, arranged according to localities.

Year 1905	North Ward	South Ward	East Ward	West Ward
Number of Deaths	3	5	3	6
Death Rate per 1,000 living	0·59	0·87	0·33	0·99

SCARLET FEVER.

Forty-five cases were notified during the year, of which one was fatal, giving an incidence rate per 1,000 living of 1·76, and a death rate of 0·03. Two of the cases notified were also notified as suffering from diphtheria. Twenty-nine were removed to Bucknall Hospital. Among these were no deaths. The number of houses infected was 41. The following table shows how favourably these figures compare with those of previous years.

Year	1905	1904	1903	1902	1901	1900	1899	1898
Number of cases notified ..	45	159	68	82	142	392	350	153
Incidence per 1,000 living ..	1·76	6·39	2·81	3·48	6·20	17·50	16·09	7·20
Number of houses infected ..	41	127	58	57	106	288	259	} No record
Number of houses where subsequent cases have occurred	3	19	10	10	16	63	63	
Number of Deaths	1	7	1	1	2	11	6	7
Death Rate per 1,000 living..	0·03	0·28	0·04	0·04	0·08	0·49	0·27	0·33
Death Rate for large towns..	*0·13	*0·13	0·14	0·19	†0·16	†0·13	0·13	0·14
Case Mortality per 100 cases	2·2	4·4	1·4	1·2	1·4	2·8	1·7	4·6
Number removed to Hospital	29	85	48	40	45	54	59	} No record
Percentage of removals ..	64·4	53·4	70·6	48·7	32·8	13·8	16·9	

* 76 large towns.

† 33 large towns.

It will be seen that the number of cases notified is the lowest on record for a period of eight years.

The death-rate from scarlet fever during the year 1905 for the 141 smaller towns was 0·11, and for the whole of England and Wales 0·11.

The following table shows how these cases were distributed amongst the various Wards:—

			North Ward	South Ward	East Ward	West Ward
Number of Cases Notified	..		11	17	5	12
Incidence per 1,000 living	..	..	2·19	2·97	0·56	1·99
Number of Houses Infected	..	..	10	15	5	11
Number of Houses where subsequent cases have occurred	..	..	1	1	..	1
Number of Deaths	..	..	..	1	..	..
Rate per 1,000 living	..	..	..	0·04	..	..
Case Mortality per 100 cases	..	..	..	5·88	..	..
Number Removed to Hospital	..		7	8	4	9
Percentage of Removals	..	..	63·6	47·0	80·0	75·0

In one instance only did a subsequent case occur among houses previously infected and disinfected. In this instance the first case was so seriously ill that the mother was allowed to visit it at the hospital..

TABLE shewing number of cases notified during each month of the year, arranged according to localities.

Year, 1905			North Ward	South Ward	East Ward	West Ward	Total
January	..	..	3	2	1	4	10
February	..	..	4	3	2	2	11
March..	..	..	1	4	1	..	6
April ..	..	..	1	..	..	1	2
May ..	..	..	1	..	..	..	1
June ..	..	..	..	2	..	..	2
July ..	..	..	..	..	..	1	1
August	..	..	..	1	..	1	2
September	..	..	..	..	..	..	..
October	..	..	..	..	..	1	1
November	..	..	..	4	..	2	6
December	..	..	1	1	1	..	3
Total	..	..	11	17	5	12	45

The ages on infection of scarlatina and other infectious diseases will be found in the table dealing with infectious diseases as a whole.

WHOOPING COUGH.

An epidemic of this disease appeared in the District soon after the commencement of the epidemic of measles, infecting for the most part the same children, and involving the same schools (see article, “ Measles ”).

There were 19 deaths during the year, giving a death-rate of 0·74 per thousand living.

The death-rate from whooping cough for the 76 large towns was 0·29, for the 141 smaller towns 0·23, and for the whole of England and Wales 0·25.

STATISTICS for 1905 and previous years :—

	1905	1904	1903	1902	1901	1900	1899
Number of Deaths ..	19	2	2	5	8	5	14
Death Rate per 1000 living	0·74	0·07	0·08	0·21	0·35	0·22	0·68
Death Rate for large towns	*0·29	*0·42	0·32	0·37	†0·36	†0·44	0·38

*76 large towns. 33 large towns.

TABLE showing number of Deaths and death rate per 1000 living, arranged according to localities :—

Year 1905.	North Ward	South Ward	East Ward	West Ward
Number of Deaths	10	..	3	6
Death Rate per 1000 living..	1·99	..	0·34	0·99

DIPHTHERIA AND MEMBRANOUS CROUP.

Seventy-eight cases of diphtheria, and four of membranous croup, were notified during the year. Of these, six diphtheria cases and 2 of membranous croup were fatal, giving an incidence rate of 3·21, and a death-rate of 0·31. Two of the cases notified were also notified as suffering from scarlet fever. Thirty-nine cases were removed to the Isolation Hospital; amongst these were no deaths. Cases which were also notified as suffering from scarlet fever have been included among the number removed to hospital under that heading.

	1905	1904	1903	1902	1901	1900	1899	1898
Number of cases notified ..	82	72	53	62	86	103	116	225
Incidence per 1,000 living ..	3·21	2·89	2·19	2·63	3·75	4·62	5·35	10·66
Number of houses infected ..	74	63	47	48	58	78	91	} No record
Number of houses where subsequent cases have occurred	3	7	4	7	13	13	13	
Number of Deaths	8	7	11	8	10	17	17	44
Death Rate per 1,000 living..	0·31	0·28	0·45	0·34	0·44	0·76	0·78	2·08
Death Rate for large towns..	†0·16	0·20	0·20	0·27	*0·33	*0·34	0·40	0·31
Case Mortality per 100 cases	9·7	9·7	20·7	12·8	11·6	16·5	15·3	15·11
Number removed to Hospital	39	32	21	31	22	12	9	} No record
Percentage of removals ..	47·5	44·4	39·6	50·0	25·5	11·6	8·1	

† 76 large towns.

* 33 large towns.

It will be seen that both the number of cases notified, and the incidence per 1,000 of the population, which had been declining rapidly from 1898 to 1903, has been steadily rising since that year.

Death rate for 141 smaller towns, 0·15; for England and Wales, 0·16.

The following table shows how the number of cases notified during the year have been distributed amongst the various wards:—

YEAR 1905	North Ward	South Ward	East Ward	West Ward
Number of Cases notified	20	10	43	9
Incidence per 1,000 living	3·97	1·74	4·89	1·49
Number of houses infected	17	7	39	11
Number of Houses where subsequent cases have occurred	1	..	1	1
Number of Deaths	3	..	3	2
Death Rate per 1,000 living	0·59	..	0·34	0·33
Case Mortality per 100 cases ..	15	..	6·9	11·1
Number Removed to Hospital ..	10	8	17	4
Percentage of Removals	50·0	80·0	39·6	44·4

In my monthly report for February last I drew attention to the inadequacy of home isolation as a preventative against the spread of diphtheria, and recommended the allowance of a fee to medical men for the injection of diphtheritic anti-toxin in the case of both patients and contacts as a cheaper alternative to the costly method of removal of all cases (willing to go) to the Isolation Hospital. At the October Council meeting a fee of 2/6 for injection of patients, and a fee of 1/6 for the injection of all contacts willing to submit to the operation, was allowed. Since that time to the end of the year eleven patients and twenty-seven contacts have been injected. Of these one patient died, and one contact injected subsequently contracted the disease. In the case of the contact 500 units only were injected, and I am informed that the patient who died was dangerously ill before medical aid

was sought. It appears that in many of the contacts a small dose only was given, in some cases as little as 250 units. The sanction of this special fee is of too recent a date for any conclusions to be at present drawn as to the relative value of injection of contacts and removal of patients to hospitals.

TABLE showing number of cases notified during each month of the year, arranged according to localities:—

Year 1905				North Ward	South Ward	East Ward	West Ward	Total
January	...	..	..	4 (a)	..	4	..	8
February	..	.	..	..	1	4	2	7
March	..	..	..	4	1	9 (a)	..	14
April ..	..	..	..	1	1	6	1	9
May ..	..	..	..	..	..	3	..	3
June ..	..	..	..	1	2	1	..	4
July ..	...	..	..	3 (b)	1	2	1	7
August	..	..	..	..	..	2	..	2
September	..	..	..	..	..	3	1	4
October	..	..	..	..	..	3	1	4
November	..	..	..	4	3	3	1	11
December	..	..	..	3	1	3	2	9
Total	..	..	..	20	10	43	9	82

(a) One of these membranous croup.

(b) Two of these membranous croup.

FEVERS. ENTERIC AND REMITTENT.

Twenty-two cases of enteric fever and one case of remittent fever were notified during the year, of which five of enteric fever were fatal, giving, in the case of enteric fever, an incidence rate of 0·86, and a death-rate of 0·19.

The remittent fever case was fatal. As far back as my records go, no case of remittent fever has been notified in previous years.

There has hitherto been no hospital provision for the isolation of cases of enteric fever other than the Workhouse and the North Stafford Infirmary. Provision is now being made at Bucknall, and cases will be received after the commencement of the next financial year. (See article, "Isolation Hospital.")

Two cases were during the year removed from the North Ward to the Workhouse Infirmary, and one from the West Ward to the North Staffordshire Infirmary.

ENTERIC FEVER.

	1905	1904	1903	1902	1901	1900	1899	1898
Number of cases notified ..	22	28	28	16	14	25	60	83
Incidence per 1,000 living ..	0·86	1·12	1·15	0·68	0·64	1·12	2·81	3·93
Number of houses infected ..	22	18	28	16	14	20	50	} No record
Number of houses where subsequent cases have occurred ..	..	3	..	..	1	2	8	
Number of Deaths	5	3	5	2	3	8	9	1
Death Rate per 1,000 living ..	0·19	0·12	0·20	0·08	0·13	0·36	0·41	0·04
Death Rate for large towns ..	*0·08	*0·11	0·11	0·15	†0·16	†0·19	0·22	0·20
Case Mortality per 100 cases	22·7	10·7	17·8	12·5	20·0	32·0	14·7	1·2

* 76 large towns,

† 33 large towns.

TABLE shewing distribution according to localities.

Year 1905	North Ward	South Ward	East Ward	West Ward
Number of cases notified	5	1	10	6
Incidence per 1,000 living	0·99	0·17	1·13	0·99
Number of houses infected	5	1	10	6
Number of houses where subsequent cases have occurred .. ..	..	..	..	..
Number of Deaths	1	..	1	3
Death Rate per 1,000 living	0·19	..	0·11	0·49
Case Mortality per 100 cases ..	20	..	10	50
Number removed to Hospital ..	2 (a)	..	..	1 (b)
Percentage of removals	40·0	..	..	16·6

(a) Removed to Workhouse Infirmary.

(b) Removed to North Staffordshire Infirmary.

TABLE shewing number of cases notified during each month,
arranged according to localities.

Year, 1905				North Ward	South Ward	East Ward	West Ward	Total
January	..	..	..	..	..	..	..	..
February	..	..	1	..	..	..	..	1
March	..	..	..	..	..	1	..	1
April	..	..	..	..	..	..	1	1
May	..	..	..	1	..	1	..	2
June	..	..	..	..	1	2	..	3
July	..	..	..	2	..	1	1	4
August	..	..	..	..	..	..	1	1
September	..	..	..	..	..	..	1	1
October	..	..	1	..	..	1	1	3
November	..	..	..	..	..	4	1	5
December	..	..	..	..	..	..	..	..
Total	..	..	..	5	1	10	6	22

DIARRHŒA.

This subject has already been considered with that of Infantile Mortality (*q.v.*).

PUERPERAL FEVER.

Four cases were notified during the year—two in April, one in July, and one in August. Three died. In all four cases the confinement had been attended by a midwife, a medical man being called in only after the disease had become well established.

MIDWIVES ACT, 1902.

The County Council having decided not to delegate their powers under this Act to District Councils, the control of midwives in this District is under the Sanitary Committee of the County Council, who have appointed a Lady Inspector for North Staffordshire. In my weekly returns to the County Medical Officer, the fact that the cases were attended by midwives was noted.

NOTIFICATIONS AND DEATHS FROM PUERPERAL FEVER FOR 1905 AND PREVIOUS YEARS.

YEAR	1905	1904	1903	1902	1931	1900	1899	1898
No. of Cases notified ..	4	1	2	3	4	13	3	3
No. of Deaths	3	..	1	..	..	3	..	..
Death Rate per 1,000 living	0.117	..	0.041	..	..	0.137	..	..
Death Rate for England and Wales .. ..	..	..	0.005	0.006	0.006	0.006	0.006	0.005

CHRONIC INFECTIOUS DISEASES.

Phthisis (Pulmonary Tuberculosis).

Number of Deaths during 1905 and previous years.

YEAR	1905	1904	1903	1902	1901	1900	1899	1898
No. of Deaths	28	15	18	20	9	23	16	20
Death Rate per 1,000 living	1.09	0.60	0.74	0.85	0.39	1.03	0.73	0.95
Death Rate for England and Wales .. ..	..	..	1.20	1.33	1.26	1.33	1.33	1.83

It will be noted that the number of deaths is the largest recorded in the District for eight years, and nearly double that for the year 1904.

Wherever a case of phthisis is known to exist, hand-bills containing printed instructions are left at the house. On the death of a case the premises are disinfected at the expense of the Council, on request from the occupier.

Provision is made at the North Staffordshire Infirmary for the reception of a limited number of cases. A Medical Referee has also been appointed for this District, to select suitable cases from amongst applicants for admission to the National Hospital, Ventnor. There have been none during 1905. The County Council have postponed taking any further steps for the present in providing a County Sanatorium.

OTHER FORMS OF TUBERCULOSIS.

	1905	1904	1903	1902	1901	1900
Number of deaths	4	6	12	9	10	10
Death rate per 1000 living ..	0·15	0·24	0·49	0·38	0·43	0·44
Death rate for Engl'nd & Wales ..	...	...	0·05	0·05	0·05	0·06

TABLES showing ages at death for 1905 and previous years:—

	1905	1904	1903	1902	1901	1900	Total.
Under 1 year	1	4	3	5	4	3	19
1 and under 5 years	2	0	6	2	3	2	13
5 and under 15 years	..	2	0	0	1	2	5
15 and under 25 years	..	0	0	0	1	1	2
25 and under 65 years	1	..	3	2	1	1	7
65 and upwards .. ..	..	..	..	..	..	1	1
Total	4	6	12	9	10	10	

The majority of deaths during these years has occurred amongst young children, and demonstrates the importance of ensuring an untainted milk supply. At present it is estimated that no less than 30 per cent. of the milch cows of England and Wales are tuberculous.

COWSHEDS.

The minimum number of cubic feet per cow allowed by our bye-laws is 700; this is 100 feet less than that laid down in the Local Government Board's Model Regulations. Our bye-law is, however, strictly observed.

There is no clause in our bye-laws corresponding to that requiring cleanliness of udders and hands contained in the Model Regulations of the Local Government Board.

For details *re* Inspection of Cowsheds, etc., see Sanitary Inspector's Report.

TOXIC DISEASES.

LEAD POISONING.

There have been no deaths from this cause during the year. All cases of lead poisoning are notified by medical practitioners direct to His Majesty's Chief Inspector of Factories.

ALCOHOLISM.

	1905	1904	1903	1902	1901	1900
Number of Deaths	6	5	4	4	..	5
Death Rate per 1,000 living ..	0·23	0·20	0·16	0·17	0·00	0·22
Rate for England and Wales ..	..	..	0·12	0·12	0·13	0·14

The framing and administration of bye-laws on the subject of houses let in lodgings would tend to check a good deal of intemperance in some of the poorer districts. (See articles, "House Accommodation" and "Bye-laws.")

MALIGNANT DISEASES.

Fifteen deaths from cancer took place during the year, all of them from carcinoma. Of these, 14 occurred within the District, and one at the Workhouse.

TABLE shewing ages at death, sex and parts affected.

			45 & under 55		55 & under 65		65 and upwards		Total
			M.	F.	M.	F.	M.	F.	
Breast	..	..	..	1	..	2	..	..	3
Genitalia	..	..	..	2	..	2	1	1	6
Liver	..	..	1	2	..	..	..	..	3
Neck	..	..	..	..	1	..	..	..	1
Oesophagus	..	..	..	..	1	..	..	..	1
Pylorus	..	..	..	..	..	1	..	..	1
Total	..		1	5	2	5	1	1	15

TABLE shewing Deaths for 1905 and previous years.

			1905	1904	1903	1902	1901	1900
Number of Deaths	..	..	15	11	12	21	15	13
Rate per 1,000 living	..	..	0·55	0·44	0·49	0·89	0·65	0·58
Rate for England and Wales	..	..	..	..	0·87	0·74	0·74	0·83

DISPOSAL OF THE DEAD.

The Cemetery is situated at the north-east extremity of the town, and was completed in the year 1887. It is under the control of the District Council, by whom bye-

laws and a scale of charges have been drawn up. These are dated June 26th, 1888. The Cemetery is $16\frac{1}{2}$ acres in extent, about two acres of which are at present occupied. Deducting one acre for gravel roads and paths, and two acres which, from the hilly nature of the ground, are unsuited for burial purposes, eleven and a half acres at least are still available, forming ample provision for many years to come. The surface is composed of pit refuse on the native subsoil clay. The graves are well drained. The whole Cemetery is tastefully laid out with abundance of plants and vegetation, and considering the uncompromising nature of the original site, the present Cemetery is a very creditable production.

The graveyard attached to the Parish Church in the centre of the town was closed, as regards the acquiring of new graves, on the opening of the Cemetery.

Number of Burials in Cemetery ...	...	407
Number of Burials in Churchyard ...	...	16

Total ...		423

MORTUARY.

A Public Mortuary was erected at the end of the year 1904. It is situated in the Town Yard, a central position easily accessible from all parts of the District; a resident caretaker lives at the Town House, and bodies are received at all hours. The mortuary consists of two rooms—one for the reception of bodies, and the other fitted up for post-mortem examinations. The need of some place where these examinations could be safely and properly conducted has been a long-felt want, and has frequently given rise to remarks by the Coroner.

WATER SUPPLY.

The District is supplied by the Staffordshire Potteries Waterworks Company from deep wells situated at Hatton and Meir. The supply is in most cases constant; a few houses, however, have storage cisterns. An amount equal to twenty gallons per head is pumped into the town daily for domestic use. A new 15-in. water main from Hatton, through Fenton to Hanley, has been constructed during the year.

There are only four houses in the District with private wells. Samples from two of these have been submitted during the year for analysis, and certified as unfit for domestic use.

In order to obviate the risk of accidental local contamination, bacteriological examinations should from time to time be made.

In the case of one of the samples submitted for bacteriological examination from the neighbouring town of Hanley, at the instigation of Dr. S. M. Copeman, Medical Inspector to the Local Government Board, in November, 1904, the *bacillus coli communis* was found in as small a quantity as 10CC.

An arrangement already exists between the County Council and the University of Birmingham for gratuitous bacteriological examinations in suspected cases of diphtheria, phthisis and enteric fever.

The addition of suspected milk and water supplies to the list would be of great assistance in determining the cause and checking the spread of local epidemics.

ANALYSIS OF WATER SUPPLY.

					Hatton	Meir
Total Solid Matter dried at 212°F	..	..			16·8	16·8
Free and Saline Ammonia	..	..	..		0·000	0·000
Albuminoid Ammonia	..	..	..	..	0·000	0·000
Nitric Nitrogen	..	..	..	..	0·31	0·27
Combined Chlorine	..	..	..	..	0·84	0·84
Oxygen absorbed in 4 hours at 80°F	..	..			0·000	0·003
Appearance	..	..	..	..	Clear	Clear
Colour through 2 feet	..	..	..	..	Very pale bluish	green tinge
Hardness before Boiling	..	..	..		10·94°	12·94°
Hardness after Boiling	..	..	..	..	6·30°	5·70°
Temporary Hardness	..	..	..	..	4·64°	7·24°

(Signed) E. W. JONES, Public Analyst,
Laboratory, Wolverhampton.

The degree of permanent hardness is somewhat high ;
otherwise the water is of most excellent quality.

Goitie is moderately prevalent in the District.

SEWERAGE AND DRAINAGE.

For number and kind of sanitary conveniences, see
Sanitary Inspector's Report.

The sewers are pipe sewers of from 12-in. to 15-in.
diameter ; all recent ones have been made with patent
cement joints. The sewage is raised from low-lying
districts by means of Shone's ejectors. Street gulleys
drain into a separate system. Subsidence through mining

operations has interfered to some extent with the sewerage system at Mount Pleasant. This subsidence is still going on ; consequently, for the present, privy conversion in this part of the district is not encouraged.

A small block of houses at Fenton Park does not drain into the town sewers. The conveniences of this block are as follows :—

STREET	Number of Houses	Convenience
Park Road ..	12	4 Cottage Pans, 1 Flush
Pool Street ..	18	4 w.c.'s, 6 Slops
Hulse Street ..	22	15 Cottage Pans, 2 w.c.'s with Flush

The remaining conveniences are privies.

The outfall from this system is situated at the lower end of Pool Street, and discharges down the hill-side, forming a miniature irrigation system.

Part of the sewage passes direct into a small water-course already noted as forming one of the eastern boundaries of the District. This is dried up in parts in the summer, but ultimately passes through the eastern extremity of the town in the neighbourhood of the Goldenhill Road. A comparison of the number of cases of diphtheria and enteric fever for the past seven years, notified from the Goldenhill Road and neighbourhood, with those notified during the same period for the remaining streets of the town, shows that no detriment to public health has been caused by this system. It was thought better not to enclose these tables of streets for publication in a report.

VENTILATION OF SEWERS.

The sewers are ventilated in parts by grids at street-level, and in part by vertical shafts. In consequence of the large number of complaints of alleged nuisance from grids, a Special Committee was formed in September last, to consider this very difficult matter. A Subcommittee, consisting of the Chairman of the Health Committee, the Surveyor, the Sanitary Inspector and myself, was appointed, with authority to experiment and report. These experiments are still going on.

HOUSE DRAINS.

Nearly all are provided with disconnecting traps, and a fair number with inspection chambers. Few houses only are provided with inside w.c's. In all cases the drains are ventilated by vertical extension of the soil pipe. All privies have been emptied systematically at regular intervals, and immediately on request.

DISPOSAL OF SEWAGE.

The existing farm, rented at £719 per annum, is situated in the Longton Urban District, and the lease expires in 1912. It was laid out in 1883, when the population of the District was between 14,000 and 15,000. The sewage is treated by subsidence and broad irrigation, the effluents finally discharging into the river Trent.

In consequence of an application to the Local Government Board for sanction to borrow £33,500 for sewage disposal, a public inquiry was held at the Town Hall, on April 27th last, before Mr. Percy Boulnois, C.E., Local Government Board Inspector. It was proposed to utilize the present farm until 1912 (the date of the expiration of the lease) for storm water only, and to acquire some 18

acres of additional land at Sideway, on which to establish works sufficient to deal with a volume of sewage equal to twice the dry weather flow. On December 31st last, the Local Government Board sanctioned the borrowing of £29,861 for purposes of sewage disposal. The chief characteristic of the new scheme is the provision of percolating filters constructed of saggar particles, and provided with distributors.

REMOVAL OF HOUSE REFUSE.

All house refuse has been removed at intervals, in no case exceeding two months, by public scavenger.

There are 1,286 covered zinc bins in the District, which have been emptied weekly.

A printed notice is posted on all premises, warning occupiers not to throw vegetable matter into their ashpits. This is often disregarded, and as one ashpit frequently does service for two houses, it is difficult to fix the blame on the right shoulders.

LUNACY.

Pauper lunatics and lunatics being in such circumstances as to require relief for their proper care and maintenance are received from this District into the County Asylum, Cheddleton, Leek. This was opened in 1899.

Number admitted from Fenton during 1905 ...	15
Discharged	7
Died	6
Rate per 1,000 of the Fenton population	0·23
Number remaining December 31st, 1905	24
Rate per 1,000 of the Fenton population	0·89

TABLE showing number of Persons admitted, discharged,
died and remaining since the date of opening of the
Asylum.

		1905		1904		1903		1902		1901		1900		1899	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Number admitted	..	9	6	5	3	8	4	2	5	3	2	2	6	1	5
Number discharged	...	5	2	3	3	3	3	..	..	..	..	..	..	..	..
Number died	.. ..	4	2	3	2	2	4	1	..	..	..	..	..	..	..
Number remaining at end of year	.. ..	9	15	9	13	10	15	7	18	6	13	3	11	1	5

I am indebted to Dr. Menzies, the Medical Superintendent, for his kindness in furnishing me with details on which these statistics have been compiled.

SCHOOLS.

There are eight public elementary schools in the District, made up of seventeen departments, affording accommodation for 5,051 scholars. The number of scholars on the rolls on December 31st, 1905, was 4,779. Two of the schools are constructed on the large central hall system. In two cases large rooms are divided by wooden screens, and in one instance by a curtain.

Total school accommodation in the District	5,051
Total number of scholars on rolls, Dec. 31st, 1904 ...	4,779
" " " " 1905 ...	4,779
Average attendance during 1904	4,278
" " " 1905	4,443
No. of children attending school under 5 years of age	670
" " " " 4 " "	211

FEEBLE-MINDED CHILDREN.

CLASS I.—Those excused school attendance on account of mental defect:—

(a)	Imbeciles	...	...	4*
(b)	Idiots	...	...	2*
(c)	Cretins	...	...	1
				<hr/>
Total				7
				<hr/>

*Of these, one of each also suffers from epilepsy.

CLASS II.—Those attending special schools on account of grave defect of sense organs:—

(a)	Blind and Deaf School, Stoke-on-Trent	...	9
(b)	Blind and Deaf School, Boston Spa, Yorks	...	1
			<hr/>
			10

CLASS III.—Those attending ordinary schools, but whose mental defect is of such a degree as to render special educational treatment essential—19.

Leaving Class II. out of account, as being already supplied with special educational facilities, the total number of defectives was 26, giving a percentage on the total school population of only 0·52. The usual percentage is from one to two.

CLASS IV.—Those capable of being taught in ordinary schools, but who are markedly backward.

I regret that time allowed me to examine the children of two schools only under this class. The numbers may be sub-classified as follows:—

A.	Mental enfeeblement only	...	...	9
B.	Mental enfeeblement accompanied by—			
	(1) Defective bodily development...	19		
	(2) Low bodily nutrition	...	...	7
	(3) Abnormal nerve signs	...	...	11
	(4) Defects of sense organs	...	...	9

Some of the children examined showed defects belonging to more than one of these sub-divisions; the total number under Class IV. was 50. The number of children on the rolls at the two schools examined was 1,065—giving a percentage of 5·2.

Of the 9 cases accompanied by defects of sense organs, measles caused the defect in one case, diphtheria in one, and scarlatina in two.

THE EXCLUSION FROM SCHOOL OF CHILDREN UNDER FIVE YEARS.

I am strongly in favour of this measure for the reasons stated below. The proposed compromise of excluding those under four would render reliable statistics as to comparative mortality impossible to obtain, as in the Registrar-General's and other reports the quinquennial period only has been given. The main reasons are :—

I.—The comparative mortality from those infectious diseases more usually contracted at school is much higher under the age of five years than over.

TABLE SHEWING COMPARATIVE MORTALITY FROM CERTAIN INFECTIOUS DISEASES ABOVE AND BELOW THE
AGE OF FIVE YEARS, FOR THE YEAR 1905 AND PREVIOUS YEARS.

	1905		1904		1903		1902		1901		1900		1899		1898	
	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5	Under 5	Over 5
Measles	17	..	..	..	5	..	..	2	..	14	1	..	..	35	1	68
Scarlatina .. ..	..	1	4	3	..	1	1	1	1	10	1	5	1	6	1	
Whooping Cough ..	19	..	2	..	2	..	5	8	..	4	..	..	1	5	..	
Diphtheria and Memb. } Croup	8	..	5	2	4	7	6	2	4	8	9	9	7	32	12	
Total ..	44	1	11	2	11	8	12	2	17	5	36	11	14	9	78	14

This shows the importance of preserving these young children from one of the most potent sources of infection, viz., their congregation in large numbers in confined spaces.

II.—The tendency of these diseases to assume a malignant type in the case of the very young. Besides increasing the mortality, this tendency is also apt to lead to a larger number becoming affected with permanent defects of sense organs, rendering education difficult. In some cases this is accompanied by marked mental enfeeblement.

III.—The confinement of young infants in class-rooms interferes with the natural development of their respiratory, circulatory, digestive and muscular systems, leading to stunted growth, low bodily nutrition, and mental enfeeblement.

IV.—Any attempt to develop the higher mental faculties at a tender age is liable to result in sleep-talking, night terrors, and a host of other neuroses, including moral perversion.

By the exclusion in this District of children under five, additional school accommodation for 942 children would be forthcoming, obviating any necessity for erecting new school premises for some considerable time to come.

Schools closed during the year on account of the prevalence of Infections Disease :—

St. Paul's, Mount Pleasant—

February 15th to April 4th.—Measles.

Christ Church (Infants)—

March 25th to April 15th.—Measles.

St. Michael's, Victoria Road (Infants)—

April 13th to May 1st.—Measles.

Turner Memorial (Infants)—

June 21st to July 17th.—Measles.

The Heron Cross, Market Street, and Queen Street Schools were also severely affected.

Mumps and chicken-pox were moderately prevalent during the last month of the year among the scholars of the infants' department of the under-mentioned schools:—
Christ Church, Turner Memorial, Market Street.

SUBJECTS TAUGHT AT THE SCHOOLS RELATING TO PUBLIC HEALTH.

1. Care, feeding and management of infants.
2. Preparation of infants' foods.

Your late Medical Officer of Health, Dr. Griffiths, in his report for the year 1903, advocated instruction in the subjects of Cleanliness, Pure Air, Food, Drink, and the nature and effects of Alcohol (*q.v.*)

SANITARY CONVENIENCES AT SCHOOLS.

(See Sanitary Inspector's Report.)

TABLE SHEWING THE NUMBER OF NOTIFICATIONS OF SCARLATINA AND DIPHTHERIA AMONG THOSE ATTENDING THE VARIOUS SCHOOLS OF THE DISTRICT, ARRANGED ACCORDING TO MONTHS.

	Fenton Church		Turner Memorial		Fenton Low		St. Mary's R.C.		Mount Pleasant		Market Street		Heron Cross		Queen Street		Total
	Scarlatina	Diphtheria	Scarlatina	Diphtheria	Scarlatina	Diphtheria	Scarlatina	Diphtheria	Scarlatina	Diphtheria	Scarlatina	Diphtheria	Scarlatina	Diphtheria	Scarlatina	Diphtheria	
January ..	1	—	—	1	1	—	—	—	—	—	—	1	—	—	1	1	7
February ..	1	—	—	—	—	—	—	—	1	—	1	—	—	—	1	4	8
March ..	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	1	9
April ..	—	—	—	—	1	—	—	—	—	—	—	—	1	—	5	—	9
May ..	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	2
June ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
July ..	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
August ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2
September ..	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	2
October ..	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	1
November ..	—	1	—	—	—	—	—	—	—	—	—	1	—	2	1	1	4
December ..	—	1	—	2	—	1	—	—	—	—	1	—	—	—	—	—	8
																	5
Total ..	2	4	—	3	3	3	—	—	4	—	4	6	8	3	2	15	58

ADOPTIVE ACTS.

TITLE	DATE OF ADOPTION
Infectious Diseases Notification Act ...	April 15th, 1891
Infections Diseases Prevention Act	1891
Public Health Act Amendment Act (the whole except Pt. IV.)	1893

BYE-LAWS.

SUBJECT	DATE
Cemetery	July 26th, 1888
Dairies, Cowsheds, and Milkshops ...	January 1st, 1889
Telegraph and other Wires	March 13th, 1893
Common Lodging Houses	March 13th, 1894
Slaughter-houses	March 13th, 1894
Whirligigs and Swings	March 13th, 1894
Nuisances	March 13th, 1894
Alteration of Buildings	March 13th, 1894
Buildings and Streets	July 23rd, 1894

There are no common lodging-houses on the register.

Bye-laws are needed on the subject of houses let in lodgings. (See articles, "House Accommodation" and "Alcoholism.")

Remarks *re* bye-laws on Dairies, Cowsheds and Milkshops will be found in article, "Tuberculous Diseases."